Risk Index for Overdose or Serious Opioid-Induced Respiratory Depression (RIOSORD)

Question	Y/N	Score
In the past 6 months, has the patient had a health care visit (outpatient, inpatient, or emergency department) involving any of the following health conditions?		
Substance use disorder (abuse or dependence), including alcohol, amphetamines, antidepressants, cannabis, cocaine, hallucinogens, opioids, and sedatives		25
Bipolar disorder or schizophrenia		10
Stroke or other cerebrovascular disease		9
Kidney disease with clinically significant renal impairment		8
Heart failure		7
Nonmalignant pancreatic disease (e.g., acute or chronic pancreatitis)		7
Chronic pulmonary disease (e.g., emphysema, chronic bronchitis, asthma, pneumoconiosis, asbestosis)		5
Recurrent headache (e.g., migraine)		5
Does the patient use any of the following substances?		
Fentanyl		13
Morphine		11
Methadone		10
Hydromorphone		7
Does the patient use an extended-release or long-acting formulation of any prescription opioid?		
Prescription benzodiazepine		9
Prescription antidepressant		8
Is the patient's current maximum prescribed daily morphine-equivalent dose ≥100mg for all opioids used on a regular basis?		7
Total Possible Score:		146
Patient Score:		

Table 2. Risk Classes and Predicted Probability of Serious Opioid-Induced Respiratory Depression during the Next 6 Months.*

Risk Class	RIOSORD Score	Average Predicted Probability	Actual Observed Incidence
		percent	
1	<5	1.9	2.1
2	5–7	4.8	5.4
3	8–9	6.8	6.3
4	10–17	15.1	14.2
5	18–25	29.8	32.2
6	26–41	55.1	58.8
7	≥42	83.4	82.4

* Data are from the study by Zedler et al.[17] The study resulted in a model for scoring of the risk of opioid-induced respiratory depression with a C-statistic of 0.90.